STATE OF CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY DEPARTMENT OF TOXIC SUBSTANCES CONTROL

In the Matter of: BAY AREA DRUM SITE 1212 Thomas Avenue San Francisco, California Respondents: AEROJET-GENERAL CORPORATION; ALLIED-SIGNAL, INC.; ASHLAND CHEMICAL, INC.; BAY AREA RAPID TRANSIT DISTRICT; BYTECH CHEMICAL CORPORATION; CHEMCENTRAL CORPORATION; CHEVRON U.S.A., INC.; COURTAULDS COATINGS, INC. (for INTERNATIONAL PAINT COMPANY); UNITED STATES DEFENSE REUTILIZATION and MARKETING SERVICE; DORSETT & JACKSON, INC.; E.I. DuPONT de NEMOURS & CO., INC.; EUREKA CHEMICAL COMPANY; EXXON COMPANY, U.S.A.; FORD MOTOR COMPANY; GENERAL MOTORS CORPORATION; GREAT WESTERN CHEMICAL COMPANY; HEWLETT-PACKARD COMPANY; INGERSOLL-RAND COMPANY (for SCHLAGE LOCK COMPANY); INTEL CORPORATION; INTERNATIONAL PAPER COMPANY (for STECHER-TRAUNG-SCHMIDT); KAISER ALUMINUM & CHEMICAL CORP.; LOCKHEED MISSILES & SPACE CO., INC.; OCCIDENTAL CHEMICAL CORP. (successor to DIAMOND SHAMROCK CHEMICAL COMPANY); MONSANTO COMPANY; NADI MANUFACTURING COMPANY; [Continued next page])

Docket No.

CONSENT ORDER

Health and Safety Code Sections
25355.5(a)(1)(B),
25355.5(a)(1)(C),
58009(b) and 58010

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NI INDUSTRIES, INC.;
NL INDUSTRIES, INC.;
OWENS-ILLINOIS, INC.;
PACIFIC GAS & ELECTRIC COMPANY;
PENNZOIL COMPANY;
PUREGRO COMPANY;
QUAKER STATE CORPORATION;
RAYCHEM CORPORATION;
REDWOOD OIL COMPANY;
REICHHOLD CHEMICALS, INC.;
REYNOLDS METALS COMPANY;
ROHM & HAAS COMPANY;
ROMIC ENVIRONMENTAL TECHNOLOGIES
 CORPORATION
  (successor to ROMIC CHEMICAL
  CORPORATION);
R. J. McGLENNON COMPANY, INC.;
SANDOZ AGRO, INC.
  (for ZOECON CORPORATION);
SEQUA CORPORATION
 (for GENERAL PRINTING INK,
  a division of SUN CHEMICAL);
SIMPSON COATINGS GROUP, INC.;
STANFORD UNIVERSITY;
THE STERO COMPANY;
SYNTEX (U.S.A.), INC.;
TELEDYNE McCORMICK SELPH;
TEXTRON, INC.;
UNITED AIR LINES, INC.;
UNITED TECHNOLOGIES CORPORATION;
UNIVERSITY OF CALIFORNIA;
VAN WATERS & ROGERS, INC.;
W.R. GRACE & COMPANY, INC.; and
W.R. MEADOWS, INC.
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I. INTRODUCTION

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Parties. The State of California Department of Toxic
Substances Control ("Department") issues this Consent Order
("Order") to each of the following parties:
          AEROJET-GENERAL CORPORATION;
          ALLIED-SIGNAL, INC.;
          ASHLAND CHEMICAL, INC.;
          BAY AREA RAPID TRANSIT DISTRICT;
          BYTECH CHEMICAL CORPORATION;
          CHEMCENTRAL CORPORATION;
          CHEVRON U.S.A., INC.;
          COURTAULDS COATINGS, INC.
            (for INTERNATIONAL PAINT COMPANY);
          UNITED STATES DEFENSE REUTILIZATION
            and MARKETING SERVICE;
          DORSETT & JACKSON, INC.;
          E.I. DuPONT de NEMOURS & CO., INC.;
          EUREKA CHEMICAL COMPANY;
          EXXON COMPANY, U.S.A.;
          FORD MOTOR COMPANY;
          GENERAL MOTORS CORPORATION;
          GREAT WESTERN CHEMICAL COMPANY;
          HEWLETT-PACKARD COMPANY;
          INGERSOLL-RAND COMPANY
            (for SCHLAGE LOCK COMPANY);
          INTEL CORPORATION;
          INTERNATIONAL PAPER COMPANY
            (for STECHER-TRAUNG-SCHMIDT);
          KAISER ALUMINUM & CHEMICAL CORP.;
          LOCKHEED MISSILES & SPACE CO., INC.;
          OCCIDENTAL CHEMICAL CORP.
            (successor to DIAMOND SHAMROCK CHEMICAL COMPANY);
          MONSANTO COMPANY;
          NADI MANUFACTURING COMPANY;
          NI INDUSTRIES, INC.;
          NL INDUSTRIES, INC.;
          OWENS-ILLINOIS, INC.;
          PACIFIC GAS & ELECTRIC COMPANY;
          PENNZOIL COMPANY;
          PUREGRO COMPANY;
          QUAKER STATE CORPORATION;
          RAYCHEM CORPORATION:
          REDWOOD OIL COMPANY;
          REICHHOLD CHEMICALS, INC.;
          REYNOLDS METALS COMPANY;
          ROHM & HAAS COMPANY;
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ROMIC ENVIRONMENTAL TECHNOLOGIES CORPORATION (successor to ROMIC CHEMICAL CORPORATION); R. J. McGLENNON COMPANY, INC.; SANDOZ AGRO, INC. (for ZOECON CORPORATION); SEOUA CORPORATION (for GENERAL PRINTING INK, a division of SUN CHEMICAL); SIMPSON COATINGS GROUP, INC.; STANFORD UNIVERSITY; THE STERO COMPANY; SYNTEX (U.S.A.), INC.; TELEDYNE McCORMICK SELPH; TEXTRON, INC.; UNITED AIR LINES, INC.; UNITED TECHNOLOGIES CORPORATION; UNIVERSITY OF CALIFORNIA; VAN WATERS & ROGERS, INC.; W.R. GRACE & COMPANY, INC.; and W.R. MEADOWS, INC.

Each of the above-listed parties is referred to herein as a "Respondent" and the above-listed parties are referred to herein, collectively, as "Respondents."

/// /// 1.2 <u>Site</u>. This Order applies to the property located at 1212 Thomas Avenue, in the City and County of San Francisco, California, and includes any nearby place where hazardous substances released at or from that property may have come to be deposited (the "Site"). A legal description and a map of the property located at 1212 Thomas Avenue, San Francisco, California ("the Property") are attached hereto as Exhibit A, and are incorporated herein by this reference.

1.3 Jurisdiction.

- 1.3.1 The Department contends that section 25355.5(a)(1)(B) of the California Health and Safety Code ("H&SC") authorizes it to issue an order establishing a schedule for removing or remedying a release of a hazardous substance at a site, or for correcting the conditions that threaten the release of a hazardous substance. The order may include, but need not be limited to, requiring specific dates by which the nature and extent of a release shall be determined and the site adequately characterized, a remedial action plan shall be prepared and submitted to the Department for approval, and a removal or remedial action shall be completed. Respondents admit only that H&SC section 25355.5(a)(1)(B) speaks for itself.
- 1.3.2 The Department contends that H&SC section 25355.5(a)(1)(C) authorizes it to enter into an enforceable agreement with

potentially responsible parties for a site which requires the parties to take necessary corrective action to remove the threat of a release of hazardous substances, or to determine the nature and extent of a release and to characterize the site adequately, prepare a remedial action plan, and complete necessary removal or remedial actions, as required in the approved remedial action plan. Respondents admit only that H&SC section 25355.5(a)(1)(C) speaks for itself.

- 1.3.3 The Department contends that H&SC section 25359.2 allows the imposition of administrative penalties for failure to comply with an order issued pursuant to H&SC section 25355.5. Respondents admit only that H&SC section 25359.2 speaks for itself.
- 1.3.4 The Department contends that H&SC sections 58009(b) and 58010 authorize it to commence and maintain all proper and necessary actions and proceedings to abate public nuisances related to matters within its jurisdiction. Respondents admit only that H&SC sections 58009(b) and 58010 speak for themselves.
- 1.3.5 Respondents acknowledge the Department's jurisdiction for purposes of issuance and enforcement of this Consent Order and waive any right they may have to a hearing or determination regarding such jurisdiction.

1.4 Denial of Liability/Reservation of Rights.

- 1.4.1 By entering into this Order, Respondents make no admission of liability nor do they admit or acknowledge any causal or other relationship between any of their activities, past or present, and any conditions at or around the Site, nor do Respondents admit or acknowledge any legal responsibility for any such conditions or for remedying any contamination. Respondents expressly deny any such relationship, liability or responsibility. By entering into this Order, Respondents are not waiving any right, claim, remedy, appeal, cause of action or defense in this or any other proceeding, except as explicitly stated in this Order. This Order expressly does not create rights in or obligations to third parties. Notwithstanding the foregoing, Respondents acknowledge their responsibility pursuant to this Order to perform those acts they have agreed to undertake in this Order, and shall not deny such responsibility in any proceeding brought by the Department to enforce any term or terms of this Order or to secure administrative penalties or punitive damages for the failure of any Respondent to perform any act or acts required by this Order.
 - 1.4.2 The Department and the Respondents agree that this Order shall not be construed or used as an admission or an indication of liability on the part of any of the Respondents, and Respondents expressly reserve all rights and defenses they may

have in connection with the Site, in any proceeding brought by the State of California, the Department, or by a third party, under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. sections 9601 et seq., the Hazardous Substances Account Act ("HSAA"), H&SC sections 25300 et seq., or any other statutory or common law provision, provided that Respondents shall not deny their responsibility to perform those acts that they have agreed to undertake in this Order in any proceeding brought by the Department to enforce any term or terms of this Order or to secure administrative penalties or punitive damages for the failure of any Respondent to perform any act or acts required by this Order.

- 1.4.3 Respondents and the Department expressly reserve all rights they may have under applicable statutes, regulations and case law to assert the responsibility of other entities (parties) for any contamination at or migrating from the Site, and to recover the costs of response measures, including environmental investigations, from such responsible parties.
- 1.5 <u>Purpose</u>. In entering into this Order, it is the objective of the Department and Respondents to ensure that any release or threatened release of a hazardous substance to the air, soil, surface water or groundwater at or from the Site is investigated and addressed by proposed mitigation measures.

II. FINDINGS OF FACT

The Department hereby makes the following Findings of Fact.

Respondents do not admit any of said Findings of Fact and no such Finding of Fact shall be construed or employed as an admission in any action or proceeding brought by any person or party.

Notwithstanding the foregoing, Respondents' failure to admit shall have no effect upon their obligations pursuant to this Order, or upon any proceeding brought by the Department to enforce this Order or to secure administrative penalties or punitive damages for Respondents' alleged non-compliance with this Order.

- 2.1 <u>Activities of the Respondents</u>. Each of the Respondents generated drums containing hazardous waste or substance residues which were taken or sent to the Property for treatment and/or disposal.
- 2.2 Activities of Other Parties. Each of the following persons (hereafter referred to collectively as "Other Responsible Parties") conducted the activities, or enjoy or enjoyed the status, described below at, or in connection with, the Site:
- 2.2.1 <u>Current Owners/Operators</u>. Freud F. Farley and Karl C. Kluck currently own the Property, and owned and operated the Property at a time when the Department incurred costs responding

and from the Property and at a time when hazardous substances were disposed at the Property. Dennis Webb, doing business as Mobile Debris Box Services, is currently storing debris boxes and equipment at the Property, and previously operated an unpermitted solid waste handling facility at the Property at a time when the Department incurred costs responding to the release and threatened release of hazardous substances at and from the Property.

2.2.2 Past Owners/Operators. David H. Cannon, Jack Hamilton and Bay Area Drum Company, Inc. owned and operated the Property at a time when the Department incurred costs responding to the release and threatened release of hazardous substances at and from the Property, and at a time when hazardous substances were disposed at the Property. Hamilton also transported drums containing hazardous waste or substance residues to the Property for treatment and/or disposal. In addition, Waymire Drum Company, Inc. (in its own name, doing business as Bedini Steel Drum Corp. and through its affiliate, Waymire Drum and Barrel Company, Inc., and as successor-in-interest to Bedini Barrels, Inc.), Bay Area Drum Company (affiliated with Myers Drum Company and Kaiser Steel Corporation and not Bay Area Drum Company, Inc.), IMACC Corporation (as successor-in-interest to Myers Drum Company), A.W. Sorich Bucket and Drum Company, Bedini Brothers Company, and Bedini Brothers Steel Drum Company owned and operated the

Property at times when hazardous substances were disposed at the Property. Other entities or individuals not listed in this section later may be determined to have been "owners" or "operators" as those terms are defined in CERCLA and the HSAA.

2.2.3 Generators. Each of the following Other Responsible Parties generated drums containing hazardous waste or substance residues which were taken or sent to the Property for treatment and/or disposal:

- The Charles H. Dana Co. (successor to Danacolors, 1. Inc.)
- Delta Air Lines, Inc. 2.
- The Dow Chemical Company 3.
- Eureka Fluid Works 4.
- The Glidden Company 5.
- Haz/Control, Inc. (successor to South Bay Chemical 6. Company, Inc.)
- 7. IMACC Corporation (successor to Myers Drum Company)
- Interstate Oil Company 8.
- 9. Kelly-Moore Paint Co., Inc.
- 10. Klix Corporation
- Litton Systems, Inc. 11.
- 12. McKesson Corporation
- 13. The O'Brien Corporation (successor to Fuller-O'Brien Corporation)
- 14. Olympian Oil Company
- 15. Peninsula Oil Company
- 16. Redding Petroleum, Inc.
- Shell Oil Company 17.
- Synergy Production Group, Inc. (dba Haley 18. Janitorial Supply, Inc. and Western Chemical Company)
- Tap Plastics, Inc. 19.
- 20. Union City Chemicals, Inc.
- 21. U.S. Cellulose Company
- 22. Unocal Corporation
- 23. Witco Corporation

Other entities or individuals not listed in this section later may be determined to have generated drums containing hazardous waste or substance residues which were taken or sent to the Property for treatment and/or disposal.

2.3 Physical Description of the Property. The Property is located on the northwest corner of the intersection of Thomas Avenue and Hawes Street in the Hunters Point District of San Francisco, California. The facility occupies approximately 30,000 to 35,000 square feet, one half of which is a former office/process building, and one half of which is a former drum storage yard. The Property is bordered by residential and vacant properties to the north, and by industrial properties to the northeast, east, south and west. The former office/process building is a warehouse with sheet-metal walls and ceiling. Dennis Webb, doing business as Mobile Debris Box Services, is currently storing empty debris boxes and equipment in the process building. There is evidence that, in the past, one or more transients have gained access to the building and established living quarters inside. There are no internal walls within the building. Much of the floor of the building is covered with a concrete slab, but there are large uncovered areas and cracks and joints in the concrete. The former drum storage yard is fenced and capped with a gravel and chip seal surface.

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2.4 Property History. In or about 1948, the Bedini family constructed a drum reconditioning facility on the Property, which it operated until approximately 1965. From approximately 1965 to 1970, Myers Drum Company operated a drum reconditioning business at the Property through its affiliate Bay Area Drum Company (fka A.W. Sorich Bucket and Drum Company). From approximately 1970 to 1978, Bedini Barrels, Inc. (aka Bedini Steel Drum Co.) operated a drum reconditioning business at the Property. From approximately 1978 to 1979, Waymire Drum Company, Inc. operated a drum reconditioning business at the Property in its own name, doing business as Bedini Steel Drum Co. and through its former affiliate, Waymire Drum and Barrel Company, Inc. In or about 1980, Bay Area Drum Company, Inc. ("Bay Area Drum") purchased the Property, and owned it until or about 1984. Bay Area Drum also began to operate a drum reconditioning business at the Property in 1980. In or about 1984, Freud Farley and Karl Kluck purchased the Property. Bay Area Drum continued to operate a drum reconditioning business at the Property until approximately 1987. The various drum reconditioning businesses operating at the Property received steel and plastic drums containing residues of aqueous wastes, organic chemicals, acids, oxidizers and oils from a variety of industrial, educational and government establishments. As part of the reconditioning process, the drums were flushed and recoated. Consequently, residual contents of the drums, as well as reconditioning chemicals, were released at, and ultimately from, the Property. Many of these drum residues

and reconditioning chemicals are "hazardous substances," within the meaning of H&SC section 25316.

2.4.1 The San Francisco Department of Public Works ("SFDPW") inspected the Property in 1980; its records indicate that Bay Area Drum was cited by SFDPW for sewer parameter violations at the Property from approximately 1980 through 1986. (The violations cited included discharge of materials which were outside the acceptable range for chromium concentration, oil/grease concentration, pH, and chemical oxygen demand.) The Department first investigated the Property in or about July 1982, in response to a citizen complaint that hazardous waste was being dumped into the sewer system. Field testing of drum reconditioning waste waters indicated a pH between 1 and 2. (An aqueous waste with a pH less than or equal to 2 is defined as a hazardous waste. 22 California Code of Regulations ("CCR") sections 66261.20(a) and 66261.22(a)(1).) In or about October 1983, the San Francisco Department of Public Health ("SFDPH") inspected the Property, in response to a citizen complaint regarding drums falling into the backyard of a residence and a vacant lot adjacent to the Property. In or about December 1983, the Department and the SFDPH inspected the Property and took soil and liquid samples at the Property and at other Site locations. Test results showed elevated levels of copper, lead, zinc, selenium, polychlorinated biphenyls ("PCBs") and solvents.

- 2.4.2 In or about July 1984, the Department issued a Notice of Violation to Bay Area Drum, requiring an investigation and cleanup of contaminated Site soils. On or about May 21, 1985, the Department obtained liquid and solid samples from process collection sumps at the Property. Testing of those samples revealed high concentrations of barium, cadmium, cobalt, chromium, copper, nickel and zinc. Concentrations of volatile organic solvents and pesticides were also found.
- 2.4.3 On or about June 13, 1986, the Department issued a Remedial Action Order to Responsible Parties, which ordered remedial investigation and remedial action. The parties named in that order were: Bay Area Drum Company, Inc., a California Corporation; Freud Farley, an individual; Karl Kluck, an individual; Ernest Bedini; Joseph Bedini; Myers Container Corporation; and Waymire Drum Company. The Department issued final Notices of Non-Compliance to the above parties in or about July 1986.
- 2.4.4 On or about June 30, 1987, the Department issued an Imminent and Substantial Endangerment ("I&SE") Determination due to the high levels of chemical compounds detected at the Site, including PCBs, lead, and pesticides (chlordane and toxaphene).
- 2.4.5 The Department conducted an expedited response action ("ERA") at the Site in or about 1987 and 1988. The ERA entailed

the partial removal and disposal of contaminated soil and stored waste materials from the Property, the partial removal and disposal of contaminated soil from a vacant lot and residences adjacent to the Property, the removal and disposal of buried drums from along the Property's northern fenceline adjacent to the vacant lot, the capping of the Property's drum yard, and the fencing of that drum yard.

- 2.4.6 The Department conducted investigations in 1988 and 1989 of contamination remaining in Site soil and groundwater.
- 2.4.7 In or about July 1990, the Department arranged for 2,150 gallons of contaminated groundwater generated during Site well development and sampling activities to be manifested, transported from the Site and treated at an off-Site, permitted treatment facility selected by the Department. That same month, the Department arranged for 76 drums of contaminated soil generated during Site drilling and sampling activities to be manifested, transported from the Site and disposed of at a permitted Class I hazardous waste disposal facility selected by the Department.
- 2.4.8 In 1992, the Department further investigated the contamination remaining in Site soil and groundwater. In or about 1992, the Department sampled outdoor soils at the Site, as well as the concrete floor, and soils beneath the concrete floor, inside the Property's process building. And in or about October

- 1992, the Department arranged for two drums of contaminated soil generated during Site drilling and sampling activities to be manifested, transported from the Site and disposed of at a permitted Class I hazardous waste disposal facility selected by the Department.
- 2.4.9 Since 1993, the Department has reviewed and commented upon draft Risk Assessment Workplans submitted by Respondents. In or about October 1993, Respondents, acting pursuant to a Department directive, arranged for seven drums of contaminated rinse and groundwater generated during Site well development and sampling activities in 1992 to be manifested, transported from the Site and treated off-Site at Romic Chemical Corporation's permitted facility in Palo Alto, California.
- 2.5 <u>Substances Found at the Site</u>. Pursuant to section 102 of CERCLA, 42 U.S.C. section 9602, and H&SC section 25316, a substance is a "hazardous substance" if it is listed in Title 40, Code of Federal Regulations ("CFR"), section 302.4. The following substances, listed in 40 CFR section 302.4, have been detected in the groundwater ("gw") and/or soil ("s") at the Site: acenaphthene (gw); aldrin (s); anthracene (s); antimony (s); arsenic (gw,s); barium (gw,s); benzene (gw,s); benzo(a)anthracene (s); benzo(b)fluoranthene (s); benzo(k)fluoranthene (s); benzo(a)pyrene (s); benzoic acid (gw); a-BHC (s); b-BHC (s); d-BHC (gw); g-BHC(lindane) (s); bis(2-ethylhexyl)phthalate (gw);

butyl benzyl phthalate (s); cadmium (gw,s); carbon disulfide (gw); chlordane (s); chlorobenzene (s); chromium (gw,s); chrysene (s); copper (gw,s); 4,4-DDD (s); 4,4-DDE (s); 4,4-DDT (s); 1,2dichlorobenzene (gw,s); 1,4-dichlorobenzene (s); 1,1dichloroethane (gw); 1,2-dichloroethane (gw,s); 1,2dichloroethylene (gw,s); dieldrin (s); diethyl phthalate (gw); 2,4-dimethylphenol (gw,s); di-n-octyl phthalate (s); endosulfan sulfate (s); endrin (s); endrin aldehyde (s); ethylbenzene (gw,s); fluoranthene (gw); fluorene (gw); heptachlor (gw,s); heptachlor epoxide (s); isophorone (s); lead (gw,s); mercury (gw,s); methoxychlor (s); 4-methyl-2-pentanone (s); naphthalene (gw,s); nickel (gw,s); phenanthrene (s); polychlorinated biphenyls (PCBs: arochlor 1016, 1221, 1232, 1242, 1248, 1254, 1260) (s); phenol (gw); pyrene (s); selenium (gw); silver (gw,s); styrene (s); 1,1,2,2-tetrachloroethane (s); tetrachloroethylene (i.e. perchloroethylene) (gw,s); thallium (gw); toluene (gw,s); toxaphene (s); 1,2,4-trichlorobenzene (s); trichloroethylene (gw,s); vanadium (gw,s); vinyl chloride (gw); xylene (gw,s); and zinc (gw,s). Attached hereto as Exhibit B and incorporated herein by this reference are tables setting forth hazardous substances detected in the groundwater at the Site in concentrations that exceed drinking water standards and hazardous substances detected in the soil of the Property's process building in concentrations that render them hazardous wastes, or potential hazardous wastes, under California law.

- 2.6 Routes of Exposure. People working or living (e.g. as unauthorized transients) inside the Property's process building could be exposed to contaminants via dermal contact or via inhalation of volatile or dust-borne contaminants. Excavation of soil in the areas where contamination exists could expose workers and nearby residents to contamination via dermal contact or via inhalation of contaminants, either from soil or groundwater. If a well were installed in the contaminated groundwater zone, both well installers and well water users could be exposed to contaminants by dermal contact, by inhalation of volatile contaminants, or by ingestion.
- 2.7 <u>Public Health and/or Environmental Risk</u>. The public at risk includes those people who work or live (as transients) inside the Property's process building, those who excavate into contaminated soil or groundwater, and/or persons who otherwise come into contact with, inhale or ingest contaminated air, soil or groundwater.

III. CONCLUSIONS OF LAW

The Department hereby makes the following Conclusions of Law. Respondents do not admit any of said Conclusions of Law, and expressly deny the Conclusion of Law set forth in section 3.5 of this Order. Respondents' failure to admit, and express denial, shall have no effect upon their obligations pursuant to this

Order, or upon any proceeding brought by the Department to enforce this Order or to secure administrative penalties or punitive damages for Respondents' alleged non-compliance with this Order.

- 3.1 Each of the Respondents, and each of the Other Responsible Parties, is a "responsible party" or "liable person," as defined by H&SC sections 25319, 25323.5 and 25385.1(g).
- 3.2 Each of the substances listed in section 2.5 of this Order is a "hazardous substance," as defined by H&SC section 25316, and has been found at the Site.
- 3.3 A "release" or "threatened release" of the hazardous substances listed in section 2.5 of this Order has occurred at the Site, and the further "release" of those hazardous substances from the Site is "threatened," within the meaning of H&SC section 25320.
- 3.4 The actual or threatened release of hazardous substances at or from the Site may present an imminent and substantial endangerment to the public health or welfare or to the environment.
- 3.5 The actual or threatened release of hazardous substances at or from the Site is injurious to public health, or is an

obstruction to the free use of property, which, at the same time, affects the entire community where the Site is located, and thus constitutes a "public nuisance" as defined by California Civil Code sections 3479 and 3480.

IV. DETERMINATIONS

Based on the foregoing Findings of Fact and Conclusions of Law, the Department hereby makes the following Determinations. Respondents do not admit either of the following Determinations, and expressly deny the Determination set forth in section 4.2 of this Order. Respondents' failure to admit, and express denial, shall have no effect upon their obligations pursuant to this Order, or upon any proceeding brought by the Department to enforce this Order or to secure administrative penalties or punitive damages for Respondents' alleged non-compliance with this Order.

- 4.1 Removal and remedial action is necessary at the Site because there may be an imminent and substantial endangerment to the public health or welfare or to the environment.
- 4.2 Removal and remedial action is necessary at the Site to abate a public nuisance.

V. ORDER

Based on the foregoing Findings of Fact, Conclusions of Law and Determinations, the Department orders Respondents to conduct the following response activities, in the manner and in accordance with the schedule specified herein. Respondents agree to conduct the following response activities, in the manner and in accordance with the schedule specified herein:

- 5.1. Consistency with Applicable Law. All work performed under this Order shall be consistent with and based on CERCLA, as amended; the National Contingency Plan, 40 CFR Part 300, as amended; the HSAA, as amended; all applicable safety regulations including, but not limited to, 29 CFR section 1910.120; state laws and regulations, as amended; and other current and applicable United States Environmental Protection Agency ("U.S. EPA") and Department guidance and standards.
- Baseline Risk Assessment Report for Department review and approval. Respondents shall submit their Baseline Risk Assessment Report within 60 days of the date this Order is issued by the Department. The report shall be prepared consistent with U.S. EPA and Department guidance and regulations, including at a minimum: Risk Assessment Guidance for Superfund, Volume 1; Human Health Evaluation Manual, December 1989; Superfund Exposure

Assessment Manual, April 1988; and Risk Assessment Guidance for Superfund, Volume 2, Environmental Evaluation Manual, March 1989. The Baseline Risk Assessment Report shall include the following components:

- (a) Contaminant Identification. Characterization data shall be screened to identify contaminants of concern in order to focus subsequent efforts of the risk assessment process.
- (b) <u>Environmental Evaluation</u>. An ecological assessment consisting of:
 - Identification of sensitive environments and rare, threatened, or endangered species and their habitats; and
 - (2) As appropriate, ecological investigations to assess the actual or potential effects on the environment and/or develop remediation criteria.
- Exposure Assessment. The objectives of an exposure assessment are to identify actual or potential exposure pathways, to characterize the potentially exposed populations, and to determine the extent of the exposure.
- (d) Toxicity Assessment. Respondents shall evaluate the types of adverse health or environmental effects associated with individual and multiple chemical exposures; the relationship between magnitude of exposures and adverse effects; and related uncertainties such as the weight of evidence for a chemical's potential carcinogenicity in humans.
- (e) Risk Characterization. Risk characterization now includes the potential risks of adverse health or environmental effects for each of the exposure scenarios derived in the exposure assessment.
- 5.3 Removal Actions. If, during the course of the Remedial Investigation or Feasibility Study, the Department determines that removal actions are necessary to mitigate the release of hazardous substances at or emanating from the Site, or to protect

human health or welfare or the environment, Respondents shall immediately consult with the Department about such removal actions upon written notice to Respondents from the Department. The Department expressly reserves any rights it may have under law to require Respondents, the Other Responsible Parties, or any other person, to perform removal actions at or adjacent to the Site in the event the Department determines that they are necessary, including but not limited to: requiring the Respondents, the Other Responsible Parties, or any other person, to submit a removal action workplan, including an implementation schedule, and to implement an approved removal action workplan for the Site. Respondents expressly reserve all rights and defenses with respect to any immediate removal action requirements imposed on them by the Department during the course of the Remedial Investigation or Feasibility Study. Either the Department or the Respondents may identify the need for removal actions, and seek the consultation provided for in this section. Any disposal of hazardous substances shall be conducted in accordance with the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. sections 6901 et seq., as amended, the Toxic Substances Control Act, 15 U.S.C. sections 2601 et seq., and all other applicable federal, state and local requirements.

5.4 <u>Groundwater Monitoring</u>. Within 60 days of the date this Order is issued by the Department, Respondents shall prepare and submit to the Department for review and approval a detailed

Groundwater Monitoring Workplan and implementation schedule which covers all the activities necessary to conduct groundwater monitoring for the Site during the period between the effective date of this Order and the date the Department publishes a draft remedial action plan for the Site for public comment.

The Groundwater Monitoring Workplan shall include a detailed description of the tasks to be performed, the information or data needed for each task, and the deliverables which will be submitted to the Department, including but not limited to semiannual reports of groundwater sampling results obtained during the period covered by the Groundwater Monitoring Workplan. Either the Department or Respondents may identify the need for additional work.

The Groundwater Monitoring Workplan shall include all the sections listed below.

- (a) Sampling Procedures. The workplan shall include:
 - (1) Monitoring well/sample locations, including a map showing these locations, and proposed frequency;

 - (3) Detailed specification of sampling equipment and procedures;
 - (4) Sample handling and analysis including preservation methods, shipping requirements and holding times; and
 - (5) Management plan for wastes generated.

- (b) <u>Ouality Assurance Procedures</u>. The workplan shall include:
 - (1) Project organization and responsibilities with respect to sampling and analysis;
 - Quality assurance objectives for measurement including accuracy, precision, and method detection limits. In selecting analytical methods, Respondents shall consider obtaining detection limits at or below potential Applicable or Relevant and Appropriate Requirements ("ARARS"), such as Maximum Contaminant Levels ("MCLS") or Maximum Contaminant Level Goals ("MCLGs");
 - (3) Sampling procedures;
 - (4) Sample custody procedures and documentation;
 - (5) Field and laboratory calibration procedures;
 - (6) Analytical procedures;
 - (7) Laboratory to be used certified pursuant to H&SC section 25198;
 - (8) Specific routine procedures used to assess data (precision, accuracy and completeness) and corrective actions;
 - (9) Reporting procedure for measurement of system performance and data quality;
 - (10) Data management, data reduction, validation and reporting. Information shall be accessible to downloading into the Department's system; and
 - (11) Internal quality control.
 - (c) Health and Safety Procedures. A Health and Safety Plan governing groundwater monitoring activities at the Site shall be prepared in accordance with federal (29 CFR section 1910.120) and state (Title 8 CCR section 5192) regulations and shall describe the following:
 - Field activities including work tasks, objectives, and personnel requirements and a description of hazardous substances on the Site;
 - (2) Respondents' key personnel and responsibilities;

- (3) Potential hazards to workers including chemical hazards, physical hazards, confined spaces and climatic conditions;
- (4) Potential risks arising from the work being performed including the impact to workers, the community and the environment;
- (5) Exposure monitoring plan;
- (6) Personal protective equipment and engineering controls;
- (7) Site controls including work zones and security measures;
- (8) Decontamination procedures;
- (9) General safe work practices;
- (10) Sanitation facilities;
- (11) Standard operating procedures;
- (12) Emergency response plan covering workers addressing potential hazardous material releases;
- (13) Training requirements;
- (14) Medical surveillance program; and
- (15) Record keeping.
- (d) Other Activities. A description of any other significant activities which are appropriate to perform the groundwater monitoring shall be included.
- (e) <u>Schedule</u>. A schedule which provides specific time frames and dates for completion of each activity and report conducted or submitted under the Groundwater Monitoring Workplan.

5.4.1 Groundwater Monitoring Workplan Implementation.

Respondents shall implement the approved Groundwater Monitoring Workplan.

5.4.2 Groundwater Monitoring Workplan Revisions. If Respondents

modify any groundwater monitoring methods or initiate new groundwater monitoring activities for which no procedures have been established, Respondents shall prepare an addendum to the approved Groundwater Monitoring Workplan for Department review and approval prior to modifying monitoring methods or initiating new monitoring activities.

5.5 Remedial Investigation/Feasibility Study ("RI/FS").

Respondents shall conduct an RI/FS for the Site. The RI/FS shall be prepared consistent with U.S. EPA's "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA," October 1988. The purpose of the RI/FS is to assess Site conditions and to evaluate alternatives to the extent necessary to select a remedy appropriate for the Site. RI and FS activities shall be conducted concurrently and iteratively so that the investigations can be completed expeditiously. Because of the iterative nature of the RI/FS, additional data requirements and analyses may be identified throughout the process. Respondents shall address all additional data and analysis needs identified by the Department; these additional data and analysis requests will be consistent with the general scope and objectives of the Order.

5.5.1 RI/FS Objectives. The objectives of the RI/FS are to:

(a) Determine the nature and extent of hazardous substance contamination of air, soil, surface water and groundwater at the Site and the nature and extent of any potential hazardous substance

- contamination migrating from the Site, including offsite areas affected or potentially affected by the Site;
- (b) Identify all actual and potential exposure pathways and routes through environmental media;
- (c) Determine the magnitude and probability of actual or potential harm to public health, safety or welfare or to the environment posed by the threatened or actual release of hazardous substances at or from the Site;
- (d) Identify and evaluate appropriate response measures to prevent or minimize future releases and mitigate any releases which have already occurred; and
- (e) Collect and evaluate the information necessary to prepare a Remedial Action Plan ("RAP") in accordance with the requirements of Health and Safety Code section 25356.1.
- Workplan for Department review, and a final RI/FS Workplan for Department review and approval. Respondents shall prepare and submit to the Department for review a detailed draft RI/FS Workplan within 60 days of the date the Department approves the Baseline Risk Assessment Report required by section 5.2. Respondents shall submit a final RI/FS Workplan to the Department within 30 days of receiving the Department's comments on their draft RI/FS Workplan. The draft and final RI/FS Workplans shall include an implementation schedule and shall cover all the activities necessary to conduct a complete RI/FS of the Site and any offsite areas where there is or has been a threatened release of hazardous substances from the Site.

The draft and final RI/FS Workplans shall include detailed descriptions of the tasks to be performed, information or data needed for each task, and the deliverables which will be submitted to the Department. Either the Respondents or the Department may identify the need for additional work.

These RI/FS Workplan deliverables are identified in the remainder of this section, which includes a schedule for their submission together with the Quarterly Summary Reports required by section 6.3 of this Order. The draft and final RI/FS Workplans shall include all the sections listed below.

- a) Project Management Plan. The Project Management Plan shall define relationships and responsibilities for major tasks and project management items by Respondents, and their contractors, subcontractors, and consultants. The plan shall include an organization chart with the names and titles of key personnel and a description of their individual responsibilities.
- (b) Scoping Document. The Scoping Document shall incorporate program goals, program management principles, and expectations contained in the NCP. It shall include:
 - (1) An analysis and summary of the Site background and the physical setting. At a minimum, the following information is required:
 - (A) A map of the Property, and if they exist, aerial photographs and blueprints showing buildings and structures;
 - (B) A description of past disposal practices;
 - (C) A list of all hazardous substances, materials or wastes which were disposed, discharged, spilled, treated, stored, transferred, transported, handled or used at the Property, and a description of their estimated volumes, concentrations, and characteristics;

- (D) A description of hazardous substance characteristics; and
- (E) If applicable, a description of all current and past manufacturing processes which are or were related to each hazardous substance, material or waste.
- (2) An analysis and summary of previous response actions including a summary of all existing data including air, soil, surface water, and groundwater data and the Quality Assurance/Quality Control procedures which were followed;
- (3) The scope and objectives of RI/FS activities;
- (4) Preliminary identification of possible response actions and the data needed for the evaluation of alternatives. Removal actions shall be proposed if needed based on the initial evaluation of threats to public health and the environment. If remedial actions involving treatment can be identified, treatability studies shall be conducted during the characterization phase, unless the Respondents and the Department agree that such studies are unnecessary; and
- (5) If applicable, initial presentation of the Site Remediation Strategy.
- (c) <u>Field Sampling Plan</u>. The Field Sampling Plan shall include:
 - (1) Sampling objectives, including a brief description of data gaps and how the field sampling plan will address these gaps;
 - (2) Sample locations, including a map showing these locations, and proposed frequency;
 - (3) Sample designation or numbering system;
 - (4) Detailed specification of sampling equipment and procedures;
 - (5) Sample handling and analysis including preservation methods, shipping requirements and holding times; and
 - (6) Management plan for wastes generated.
- (d) Quality Assurance Project Plan. The Quality Assurance

Project Plan shall include:

- Project organization and responsibilities with respect to sampling and analysis;
- (2) Quality assurance objectives for measurement including accuracy, precision, and method detection limits. In selecting analytical methods, Respondents shall consider obtaining detection limits at or below potential ARARS, such as MCLs or MCLGs;
- (3) Sampling procedures;
- (4) Sample custody procedures and documentation;
- (5) Field and laboratory calibration procedures;
- (6) Analytical procedures;
- (7) Laboratory to be used certified pursuant to H&SC section 25198;
- (8) Specific routine procedures used to assess data (precision, accuracy and completeness) and corrective actions;
- (9) Reporting procedure for measurement of system performance and data quality;
- (10) Data management, data reduction, validation and reporting. Information shall be accessible to downloading into the Department's system; and
- (11) Internal quality control.
- (e) Health and Safety Plan. A Site-specific Health and Safety Plan governing all RI activities to be performed at the Site (other than groundwater monitoring activities governed by the Health and Safety Plan prepared pursuant to section 5.4(c) of this Order) shall be prepared in accordance with federal (29 CFR section 1910.120) and state (Title 8 CCR section 5192) regulations and shall describe the following:
 - (1) Field activities including work tasks, objectives, and personnel requirements and a description of hazardous substances on the Site;
 - (2) Respondents' key personnel and responsibilities;

- (3) Potential hazards to workers including chemical hazards, physical hazards, confined spaces and climatic conditions;
- (4) Potential risks arising from the work being performed including the impact to workers, the community and the environment;
- (5) Exposure monitoring plan;
- (6) Personal protective equipment and engineering controls;
- (7) Site controls including work zones and security measures:
- (8) Decontamination procedures;
- (9) General safe work practices;
- (10) Sanitation facilities;
- (11) Standard operating procedures;
- (12) Emergency response plan covering workers addressing potential hazardous material releases;
- (13) Training requirements;
- (14) Medical surveillance program; and
- (15) Record keeping.
- (f) Other Activities. The RI/FS Workplan shall include a description of any other significant activities which are appropriate to complete the RI/FS.
- (g) Schedule. The RI/FS Workplan shall include a schedule which provides specific time frames and dates for completion of each activity and report conducted or submitted under the RI/FS Workplan, including the schedules for any proposed removal actions and any operable unit activities.
- 5.5.3 <u>RI/FS Workplan Implementation</u>. Respondents shall implement the approved final RI/FS Workplan.

- 5.5.4 RI/FS Workplan Revisions. If Respondents modify any RI/FS methods or initiate new RI/FS activities for which no Field Sampling Plan, Health and Safety Plan, Quality Assurance Project Plan or other necessary procedures/plans have been approved, Respondents shall prepare an addendum or addenda to the approved plan(s) for Department review and approval prior to modifying methods or initiating new activities.
- performed by Respondents to develop data for the detailed remedial alternatives. Treatability testing is required to demonstrate the implementability and effectiveness of technologies, unless Respondents can show the Department that similar data or documentation or information exists. The required deliverables are: a workplan, a sampling and analysis plan, and a treatability evaluation report. To the extent practicable, treatability studies will be proposed and implemented during the latter part of Site characterization.
 - prepare a draft RI Report for Department review, and a final RI Report for Department review and approval. Respondents shall submit their draft RI Report to the Department for review in accordance with the approved RI/FS Workplan schedule. Respondents shall submit their final RI Report to the Department within 30 days of receiving the Department's comments on their

draft RI Report. The purpose of the RI is to collect data necessary to adequately characterize the Site for the purposes of defining risks to public health and the environment and developing and evaluating effective remedial alternatives. Site characterization may be conducted in one or more phases to focus sampling efforts and increase the efficiency of the investigation. Respondents shall identify the sources of contamination and define the nature and extent of the contamination. Using this information, contaminant fate and transport shall be evaluated. The draft and final RI Reports shall contain:

- (a) Site Physical Characteristics. Data on the physical characteristics of the Site and surrounding area shall be collected to the extent necessary to define potential transport pathways and receptor populations and to provide sufficient engineering data for development and screening of remedial action alternatives.
- (b) Sources of Contamination. Contamination sources (including heavily contaminated media) shall be defined. The data shall include the source locations, type of containment, waste characteristics, and Site features related to contaminant migration and human exposure.
 - (c) Nature and Extent of Contamination. Contaminants shall be identified and the horizontal and vertical extent of contamination shall be defined in soil, groundwater, surface water, sediment, air, and biota. Spatial and temporal trends and the fate and transport of contamination shall be evaluated.
- 5.8 <u>Risk Assessment</u>. Respondents shall prepare a draft Risk Assessment Report for Department review and a final Risk Assessment Report for Department review and approval.

Respondents shall submit their draft Risk Assessment Report within 75 days of Department approval of a final RI Report.

Respondents shall submit their final Risk Assessment Report to the Department within 30 days of receiving the Department's comments on their draft Risk Assessment Report. The draft and final Risk Assessment Reports shall be prepared consistent with U.S. EPA and Department guidance and regulations, including at a minimum: Risk Assessment Guidance for Superfund, Volume 1; Human Health Evaluation Manual, December 1989; Superfund Exposure Assessment Manual, April 1988; and Risk Assessment Guidance for Superfund, Volume 2, Environmental Evaluation Manual, March 1989. The draft and final Risk Assessment Reports shall include the following components:

- (a) <u>Contaminant Identification</u>. Characterization data shall be screened to identify contaminants of concern in order to focus subsequent efforts of the risk assessment process.
- (b) <u>Environmental Evaluation</u>. An ecological assessment consisting of:
 - Identification of sensitive environments and rare, threatened, or endangered species and their habitats; and
 - (2) As appropriate, ecological investigations to assess the actual or potential effects on the environment and/or to develop remediation criteria.
- (C) Exposure Assessment. The objectives of an exposure assessment are to identify actual or potential exposure pathways, to characterize the potentially exposed populations, and to determine the extent of the exposure.
- (d) <u>Toxicity Assessment</u>. Respondents shall evaluate the

- types of adverse health or environmental effects associated with individual and multiple chemical exposures; the relationship between magnitude of exposures and adverse effects; and related uncertainties such as the weight of evidence for a chemical's potential carcinogenicity in humans.
- (e) Risk Characterization. Risk characterization now includes the potential risks of adverse health or environmental effects for each of the exposure scenarios derived in the exposure assessment.
- 5.9 <u>Feasibility Study ("FS") Report</u>. Respondents shall prepare a draft FS Report for Department review and a final FS Report for Department review and approval. Respondents shall submit their draft FS Report to the Department for review no later than 105 days from Department approval of a final RI Report.

 Respondents shall submit their final FS Report to the Department within 30 days of receiving the Department's comments on their draft FS Report. The draft and final FS Reports shall summarize the results of the FS, including the following:
 - (a) Documentation of any treatability studies conducted.
 - (b) Development of medium specific or operable unit specific remedial action objectives, including ARARs.
 - (c) Identification and screening of general response actions, remedial technologies, and process options on a medium and/or operable unit specific basis.
 - (d) Evaluation of alternatives based on the criteria contained in the NCP and H&SC section 25356.1 including:

Threshold Criteria:

(1) Overall protection of human health and the environment.

(2) Compliance with ARARs.

Primary Balancing Criteria:

- (1) Long-term effectiveness and permanence.
- (2) Reduction of toxicity, mobility, or volume through treatment.
- (3) Short-term effectiveness.
- (4) Implementability based on technical and administrative feasibility.
- (5) Cost.

Modifying Criteria:

- (1) State and local agency acceptance.
- (2) Community acceptance.
- (e) Proposed remedial actions.

5.10 Public Participation Plan (Community Relations).

5.10.1 Revised Public Participation Plan. Within 60 days of the date this Order is issued by the Department, Respondents shall submit for Department review and approval an updated and revised Public Participation Plan ("PPP") for the Site. The updated and revised PPP shall state that Respondents will be responsible for conducting public participation tasks for the Site. The updated and revised PPP shall also provide that the Department will supervise Site public participation activities, and that all public participation documents prepared by Respondents will be prepared subject to Department approval and will be issued in final form by the Department.

- 5.10.2 Respondents' Cooperation with the Department.

 Respondents shall work cooperatively with the Department in ensuring that the affected public and community are involved in the Department's decision-making process. Any such public participation activities shall be conducted in accordance with
- the Department's decision-making process. Any such public participation activities shall be conducted in accordance with H&SC section 25356.1(d), the Department's July 1994 Public Participation Policy and Procedures Manual, and with the Department's review and approval.
- Department must comply with CEQA insofar as activities required by this Order are projects requiring CEQA compliance.

 Respondents shall submit data and information that will enable the Department to prepare a CEQA Initial Study and associated checklist, and to discuss any mitigation measures that may be required by CEQA, no later than 60 days from Department approval of a final FS Report.
- 5.12 Remedial Action Plan. No later than 75 days from
 Department approval of a final FS Report, Respondents shall
 prepare and submit to the Department a draft RAP. The draft RAP
 shall be consistent with the NCP and H&SC sections 25356.1 et
 seq. The draft RAP public review process may be combined with
 that of any other documents required by CEQA. The draft RAP
 shall be based on and summarize the approved RI/FS Reports, and
 shall clearly set forth:

- (a) Health and safety risks posed by the conditions at the Site.
- (b) The effect of contamination or pollution levels at the Site upon present, future, and probable beneficial uses of contaminated, polluted, or threatened resources.
- (c) The effect of alternative remedial action measures for the Site on the reasonable availability of groundwater resources for present, future, and probable beneficial uses.
- (d) Site specific characteristics, including the potential for offsite migration of hazardous substances, the surface or subsurface soil, and the hydrogeologic conditions, as well as preexisting background contamination levels.
- (e) Cost-effectiveness of alternative remedial action measures for the Site. Land disposal shall not be deemed the most cost-effective measure merely on the basis of lower short-term cost.
- (f) The potential environmental impacts of alternative remedial action measures for the Site, including, but not limited to, land disposal of the untreated hazardous substances as opposed to treatment of the hazardous substances to remove or reduce their volume, toxicity, or mobility prior to disposal.
- (g) A statement of reasons setting forth the basis for the removal and remedial actions selected for the Site. The statement shall include an evaluation of each proposed alternative submitted and evaluate the consistency of the removal and remedial actions proposed by the plan with the federal regulations and factors specified in H&SC section 25356.1(c). The statement shall also include a proposed Nonbinding Preliminary Allocation of Responsibility ("NBAR") for all identified Site responsible parties.
- (h) A schedule for implementation of all proposed remedial actions for the Site.
- 5.13 Stop Work Order. In the event that the Department determines that any activity at the Site (whether or not pursued in compliance with this Order) may pose an imminent or

Site or in the surrounding area or to the environment, the Department may order Respondents to stop further implementation of this Order for the period of time needed to abate the endangerment. In the event that the Department determines that any Site activities (whether or not pursued in compliance with this Order) are proceeding without Department authorization, the Department may order Respondents to stop further implementation of this Order or activity for the period of time needed to obtain Department authorization, if such authorization is appropriate. Any deadline in this Order directly affected by a Stop Work Order, under this section, shall be extended for the term of the Stop Work Order.

5.14 Emergency Response Action/Notification.

(such as a fire, earthquake, explosion, or human exposure to hazardous substances caused by the release or threatened release of a hazardous substance at or from the Site), during the course of this Order, that poses or may pose an immediate threat to the health or safety of people at the Site or in the surrounding area, or to the environment, Respondents shall immediately take all appropriate action to prevent, abate, or minimize that threat, and shall immediately notify the Department's Project Manager for the Site. Respondents shall take such action in consultation with the Project Manager and in accordance with all

applicable provisions of this Order. Within seven days of the onset of such action or occurrence, Respondents shall furnish a report to the Department, signed by the Respondents' Project Coordinator, setting forth the events which occurred and the measures taken in response thereto.

5.14.2 Nothing in section 5.14.1 of this Order shall be deemed to limit any other notification requirement to which Respondents may be subject.

VI. GENERAL PROVISIONS

The Department and Respondents agree to the following provisions governing Respondents' conduct of the response activities required by Part V of this Order and pertaining to Respondents' alleged liability for conditions, claims or costs arising as a result of their past, current or future operations:

Order is issued by the Department, Respondents shall submit to the Department in writing the name, address, and telephone number of a Project Coordinator whose responsibilities will be to receive all notices, comments, approvals, and other communications from the Department. Respondents shall promptly notify the Department of any change in the identity of the Project Coordinator.

- 6.2 Project Engineer/Geologist. The work performed pursuant to this Order shall be under the direction and supervision of a qualified professional engineer or a registered geologist in the State of California, with expertise in hazardous substance site cleanup. Within 10 calendar days from the date this Order is issued by the Department, Respondents shall submit to the Department: a) The name and address of the project engineer or geologist chosen by the Respondents; and b) in order to demonstrate expertise in hazardous substance cleanup, the résumé of the engineer or geologist, and the statement of qualifications of the consulting firm responsible for the work. Respondents shall promptly notify the Department of any change in the identity of the Project Engineer/Geologist.
- Order is issued by the Department, and on a quarterly basis thereafter, Respondents shall submit a Quarterly Summary Report of activities undertaken pursuant to this Order. Each report shall be received by the Department within three months of the Department's receipt of the prior report and shall describe:
 - (a) Specific actions taken by or on behalf of Respondents during each month in the previous quarter;
 - (b) Actions expected to be undertaken during each of the months in the ensuing quarter;
 - (C) All planned activities for each of the next three months;

- (d) Any requirements under this Order that were not completed;
- (e) Any problems or anticipated problems in complying with this Order; and
- (f) All results of sample analyses, tests, and other data generated under this Order during each of the three previous months, and any significant findings from these data.
- 6.4 Quality Control/Quality Assurance ("OC/QA"). All sampling and analysis conducted by Respondents under this Order shall be performed in accordance with QC/QA procedures submitted by Respondents and approved by the Department pursuant to this Order.
- 6.5 <u>Submittals</u>. All submittals and notifications from Respondents required by this Order shall be sent simultaneously to:

Barbara J. Cook, P.E.
Regional Branch Chief
Attention: Project Manager
Site Mitigation Branch
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710

Executive Officer
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Larry Meredith
Deputy Public Health Director
San Francisco Department of Public Health
101 Grove Street, Suite 308
San Francisco, California 94102

The Department shall notify Respondents promptly of any change in

the above list.

- Department made regarding submittals and notifications required under this Order will be communicated to Respondents in writing by the Site Mitigation Branch Chief, Department of Toxic Substances Control, or his/her designee. No informal advice, guidance, suggestions or comments by the Department regarding reports, plans, specifications, schedules or any other writings by Respondents shall be construed to relieve Respondents of their obligation to obtain such formal approvals as may be required by this Order.
 - Branch Chief or his/her designee determines that any report, plan, schedule, or other document submitted for approval pursuant to this Order fails to comply with this Order or fails to protect public health or safety or the environment, the Site Mitigation Branch Chief or his/her designee shall make a good faith attempt to resolve informally the deficiencies with Respondents' Project Coordinator. In the event that an informal resolution is not reached, the Site Mitigation Branch Chief or his/her designee shall formally return the document to Respondents with recommended changes and a reasonable date by which Respondents must submit to the Department a revised document incorporating the recommended changes. If Respondents fail to modify a

document in a manner which addresses the Department's concerns, as determined by the Site Mitigation Branch Chief or his/her designee, the Site Mitigation Branch Chief or his/her designee may modify the document as deemed necessary, approve the document as modified, and return the document to Respondents. Respondents may appeal the modification, and approval as modified, of any report, plan, schedule or other document submitted for approval pursuant to this Order made by the Site Mitigation Branch Chief or his/her designee to the Department's Deputy Director for Site Mitigation. Such an appeal shall be made in writing within ten (10) days of Respondents' receipt of notice of the modification and approval as modified of the document. The Deputy Director shall decide whether the document will remain approved as modified, or whether the document will be returned to Respondents for a further opportunity to modify the document in a manner which addresses the Department's concerns, as determined by the Site Mitigation Branch Chief or his/her designee, on a reasonable schedule to be established by the Deputy Director. The Deputy Director's decision shall be final. If Respondents fail to perform in accordance with a document approved or approved as modified pursuant to this section, such failure shall constitute noncompliance with this Order.

6.8 <u>Compliance with Applicable Laws</u>. Respondents shall carry out this Order in compliance with all applicable state, local, and federal requirements including, but not limited to,

requirements to obtain permits and to assure worker safety.

6.9 Liability of Respondents.

- 6.9.1 Upon completion in full of the requirements of this Order and upon approval by the Department of a Remedial Action Plan for the Site, any obligation of Respondents to perform a Remedial Investigation and Feasibility Study for the Site, or to prepare a Remedial Investigation Report, Feasibility Study Report, Endangerment Assessment Report and draft Remedial Action Plan for the Site, shall be satisfied in full, provided that the Department may, pursuant to its authority under the California Health and Safety Code, require the Respondents, or any of them, to conduct further Remedial Investigations and Feasibility Studies at the Site, or to prepare further or modified Remedial Investigation Reports, Feasibility Study Reports, Endangerment Assessment Reports and draft Remedial Action Plans for the Site, if:
 - Conditions unknown to the Department at the time the Remedial Action Plan for the Site is approved are thereafter discovered and these conditions indicate that (1) a hazardous substance has been, or is being, released at or from the Site, or there is a threat of such release into the environment, and (2) the Remedial Action Plan approved for the Site provides for further response activity that is not, or will not be, protective of human health and the environment; or
 - (b) Information is received after the Department's approval of a Remedial Action Plan for the Site and this information indicates, and the Director of the Department determines, based on the information received, that the response activity provided for in the Remedial Action Plan is not, or will not be,

protective of human health and the environment.

Respondents expressly reserve all their rights and defenses with respect to any further action the Department may require pursuant to section 6.9.1 of this Order once Respondents complete their obligations under this Order.

- 6.9.2 Except as expressly provided in section 6.9.1 of this Order, nothing in this Order shall constitute or be construed as a satisfaction or release from liability for any conditions or claims arising as a result of past, current or future operations of Respondents. Nothing in this Order is intended or shall be construed to satisfy or release any obligation Respondents may have to implement an approved Remedial Action Plan at the Site, or (except as expressly set forth in section 6.9.1 of this Order) to take further actions at or in connection with the Site as may be necessary to protect public health and the environment. Nothing in this Order is intended or shall be construed to release any obligation Respondents may have to reimburse the Department any otherwise unreimbursed costs it has incurred, or will incur in the future, in connection with the Site. Department and the Respondents expressly reserve all rights, claims and defenses with respect to any of Respondents' purported legal obligations that are not satisfied or released by this Order.
- 6.9.3 Nothing in this Order is intended or shall be construed to

prevent the Department, prior to the time Respondents complete all of the requirements of this Order and the Department approves a Remedial Action Plan for the Site, from issuing other and further orders to the Respondents pursuant to the Department's authority under the California Health and Safety Code. Respondents expressly reserve all their rights and defenses with respect to any such order the Department may issue during this period of time, provided that, in the event such order shall require Respondents to perform any act that Respondents have agreed to perform in this Order, or to cease performing any act which the Department may prohibit pursuant to this Order, Respondents shall not assert that they are not required to perform, or cease performing, such act. Nothing in this Order is intended or shall be construed to prevent the Department from issuing any other and further order to Respondents once Respondents have completed all their obligations under this Order and the Department approves a Remedial Action Plan for the Site, except to the extent that Respondents shall have satisfied certain purported legal obligations pursuant to section 6.9.1 of this Order. Respondents expressly reserve all their rights and defenses with respect to any such order the Department may issue to Respondents once Respondents complete their obligations under this Order.

6.9.4 Nothing in this Order is intended or shall be construed to limit the rights of any of the parties with respect to claims

arising out of or relating to the deposit or disposal at any other location of substances removed from the Site.

- 6.9.5 Nothing in this Order is intended or shall be construed to limit or preclude the Department from taking any action authorized by law to protect public health or safety or the environment and seeking recovery of the cost thereof. Except as otherwise set forth in this Order, Respondents expressly reserve all their rights and defenses with respect to any such action the Department may take.
- 6.10 <u>Laboratory Access</u>. Access to the laboratories used for analyses of samples under this Order shall be provided at all reasonable times to employees, contractors, and consultants of the Department. Nothing in this section is intended or shall be construed to limit in any way any right of entry or inspection that the Department or any other agency may otherwise have by operation of any law.
- Sampling, Data and Document Availability. Respondents shall permit the Department and its authorized representatives to inspect and copy all sampling, testing, monitoring or other such data generated by Respondents or on Respondents' behalf pertaining to work undertaken pursuant to this Order. Respondents shall submit all such non-privileged data upon the request of the Department. Copies of such non-privileged data

written request. Respondents shall inform the Department at least 5 days in advance of all field sampling under this Order, and shall allow the Department and its authorized representatives to take duplicates of any samples collected by Respondents pursuant to this Order. Respondents shall maintain a central depository of the data, reports, and other non-privileged documents prepared pursuant to this Order.

- prepared pursuant to this Order shall be preserved by Respondents for a minimum of seven years after the conclusion of all activities under this Order. If the Department requests that some or all of these documents be preserved for a longer period of time, Respondents shall either comply with that request, deliver the documents to the Department, or permit the Department to copy the documents prior to destruction. Respondents shall notify the Department, in writing, at least three months prior to destroying any documents prepared pursuant to this Order.
 - 6.13 Government Liabilities. The State of California shall not be liable for any injuries or damages to persons or property resulting from acts or omissions by Respondents, or by any of the related parties specified in section 6.26 of this Order, in carrying out activities pursuant to this Order, nor shall the State of California be held as party to any contract entered into

by Respondents or its agents in carrying out activities pursuant to this Order.

- 6.14 Additional Actions. Except as expressly set forth in section 6.9.1 of this Order, by issuing this Consent Order, the Department does not waive the right to take any further actions authorized by law. Except as otherwise set forth in this Order, Respondents expressly reserve all their rights and defenses with respect to any such action the Department may take.
- 6.15 Force Majeure. Respondents shall perform their obligations under this Order, unless such performance is prevented or delayed by events which constitute a force majeure. For the purposes of this Order, a force majeure is defined as any event arising from causes beyond the control of Respondents or their contractors, subcontractors or consultants which delays or prevents performance. Neither economic hardship nor increased costs shall be considered an event beyond the control of Respondents, and such events shall not trigger this section. In the event of a force majeure, the time for performance of the activity delayed by the force majeure shall be extended for the minimum time necessary to allow completion of the delayed activity. The time for performance of any activity dependent on performance of the delayed activity shall be similarly extended. In the event of a force majeure, Respondents shall orally notify the Department no later than forty-eight (48) hours after Respondents become aware

of the force majeure and shall notify the Department in writing within fourteen (14) calendar days after discovery of a force majeure. The written notification shall describe the force majeure delay, the anticipated length of the delay, and any measures Respondents are taking to mitigate the event or delay.

- 6.16 Extension Requests. If Respondents are unable to perform any activity or submit any document within the time required by this Order, Respondents may, prior to expiration of the time, request an extension of the time in writing. The extension request shall include a justification for the delay. All such requests shall be made in advance of the date on which the activity or document is due.
- 6.17 Extension Approvals. If the Department determines that good cause exists for an extension requested by Respondents pursuant to section 6.16 of this Order, it will grant the request and specify a new schedule in writing. Respondents shall comply with said new schedule, which shall be deemed to be incorporated in this Order, unless a further extension is requested and approved in accordance with sections 6.16 and 6.17 of this Order.

6.18 Cost Recovery.

6.18.1 The Department contends that Respondents and the Other Responsible Parties are liable for all of the costs that the

Department has incurred and will incur prior to the date the Department issues this Order, and will incur thereafter, responding to the contamination at the Site (including costs incurred by the Department overseeing response work performed and to be performed by Respondents). The Department expressly reserves its right to seek recovery of its alleged, otherwise unreimbursed response costs pursuant to CERCLA, H&SC section 25360 or any other applicable federal or state statute or common law cause of action.

- 6.18.2 Respondents deny any liability to the Department for the costs the Department has incurred and will incur, if any, responding to the contamination at the Site. Respondents specifically reserve all rights and defenses with respect to any future action brought by the Department to recover its alleged, unreimbursed response costs (including costs that the Department may incur overseeing response work performed and to be performed by Respondents), and Respondents also reserve all rights to seek reimbursement or other recovery of costs incurred by them from the State of California or other parties.
- 6.18.3 Within thirty (30) days of issuance of this Consent Order, Respondents shall pay to the Department the sum of two hundred fifty thousand dollars (\$250,000), which sum shall reimburse, in part, the costs that the Department contends it has incurred and will incur, prior to the date it issues this Order,

responding to the contamination at the Site. Said payment shall be made by cashiers' or certified check, made payable to Cashier, California Department of Toxic Substances Control, and shall bear on its face both the docket number of this Order and the phrase "Site code 200011." Said payment shall be mailed to:

Department of Toxic Substances Control Accounting Unit P. O. Box 942732 Sacramento, CA 94234-7320

Payment of this sum is not intended and shall not be construed as an admission by Respondents of any liability to the Department for any costs the Department may incur or may have incurred responding to the contamination at the Site. The Department reserves its right to seek recovery of its alleged, otherwise unreimbursed costs of response from Respondents, and Respondents expressly reserve all rights and defenses with respect to any future action brought by the Department to recover its alleged, unreimbursed response costs (including costs that the Department may incur overseeing response work performed and to be performed by Respondents), and Respondents also reserve all rights to seek reimbursement or other recovery of costs incurred by them from the State of California or other parties.

6.18.4 The two hundred fifty thousand dollars (\$250,000) paid by Respondents to the Department pursuant to section 6.18.3 of this Order shall be applied by the Department to expenditures it made

from the California Hazardous Substance Cleanup Fund responding to the contamination at the Site prior to the date the Department issued this Order. Respondents specifically reserve all rights and defenses with respect to any future action brought by the Department to recover its alleged, unreimbursed response costs (including costs that the Department may incur overseeing response work performed and to be performed by Respondents).

6.18.5 Upon payment by Respondents to the Department of two hundred fifty thousand dollars (\$250,000) pursuant to section 6.18.3 of this Order, the Department and the Respondents will begin negotiations in an effort to resolve Respondents' alleged liability to the Department for the unreimbursed costs the Department allegedly has incurred and will incur, prior to the date the Department issues this Order, responding to the contamination at the Site.

6.18.6 On or becore April 1, 1996, Respondents shall pay to the Department the further sum of sixty thousand dollars (\$60,000), which sum shall reimburse, in part, the costs that the Department contends it will incur, subsequent to its issuance of this Order and prior to its approval of a RAP for the Site, responding to the contamination at the Site. Said payment shall be made by cashiers' or certified check, made payable to Cashier, Department of Toxic Substances Control, and shall bear on its face the docket number of this Order. Said payment shall be mailed to the

Department's Accounting Unit, at the address set forth in section 6.18.3, above. Respondents' payment of this sum is not intended and shall not be construed as an admission by Respondents of any liability to the Department for any costs the Department may incur and may have incurred responding to the contamination at the Site. The Department reserves its right to seek recovery of its alleged, otherwise unreimbursed costs of response from Respondents, and Respondents reserve all rights and defenses with respect to any further action brought by the Department to recover its alleged, unreimbursed response costs (including costs that the Department may incur overseeing response work performed and to be performed by Respondents).

6.18.7 Notwithstanding Respondents' reservations of rights set forth in this Order, Respondents' payments of two hundred fifty thousand dollars (\$250,000) and sixty thousand dollars (\$60,000) to the Department, pursuant to sections 6.18.3 and 6.18.6 of this Order, respectively, are final and non-returnable, and Respondents shall not seek to recover those sums from the Department in any future action or proceeding. Notwithstanding Respondents' reservations of rights set forth in this Order, Respondents shall not seek to recover any costs they may incur complying with this Order from the Department in any future action or proceeding, and expressly waive any right they may have to recover such costs from the Department.

- Respondents agree that any statute of limitations period applicable to the Department's claims for the unreimbursed costs it allegedly has incurred, and will incur in the future, in response to the release and threatened release of hazardous substances at and/or from the Site, whether asserted pursuant to CERCLA, H&SC section 25360 or any other applicable federal or state statute or common law cause of action, is tolled from and including June 22, 1993 for a period of four years. This section is not intended to revive claims of any kind as to which the statute of limitations period may have expired prior to June 22, 1993.
- 6.20 <u>Severability</u>. The requirements of this Order are severable, and Respondents shall comply with each and every provision hereof, notwithstanding the effectiveness of any other provision.
- Incorporation of Plans, Schedules and Reports. All plans, schedules, reports, specifications and other documents that are submitted by Respondents pursuant to this Order are incorporated in this Order upon the Department's approval, or its approval as modified pursuant to section 6.7 of this Order, and shall be implemented by Respondents. Any noncompliance with the documents incorporated in this Order shall be deemed a failure or refusal to comply with this Order.

- 6.22 Modifications. This Order, and any program, plan or schedule approved by the Department pursuant to this Order (whether approved as submitted by Respondents or as modified by the Department), may be modified, terminated or revised by mutual written agreement of the Department and Respondents at any time. Respondents may, by written request, seek modification, termination or revision of this Order, or any portion of this order, or any program, plan or schedule approved by the Department pursuant to this Order, at any time. Nothing in this section is intended, or shall be construed, to affect the Department's rights under section 6.7 of this Order.
- 6.23 <u>Time Periods</u>. Unless otherwise specified, time periods begin from the effective date of this Order and "days" means calendar days. The effective date of this Order is the date the Order is issued by the Department.
- onder this Order, except as expressly provided elsewhere in this Order, shall terminate and be deemed satisfied upon Respondents' receipt of written notice from the Department that Respondents have complied with all the requirements of this Order. The Department shall provide Respondents with such written notice upon Respondents' performance of all the requirements of this Order and Department approval of a Remedial Action Plan for the Site.

6.25 <u>Calendar of Tasks and Schedules</u>. This section is included merely for the convenience of listing in one location the submittals required by this Order. If there is a conflict between the date for a scheduled submittal within this section and the date within the section describing the specific requirement, the latter shall govern.

CALENDAR OF TASKS AND SCHEDULES

TASK

1. Identify Project Coordinator; Section 6.1;

- 2. Identify Project
 Engineer/Geologist;
 Section 6.2;
- 3. Submit Quarterly Summary Reports; Section 6.3;
- 4. Submit Groundwater Monitoring Workplan and implementation schedule; Section 5.4;
- 5. Submit updated and revised Public Participation Plan; Section 5.10;
- 6. Groundwater sampling results; Section 5.4;
- 7. Submit Baseline Risk Assessment Report; Section 5.2;

SCHEDULE

Within 10 days from the date the Order is issued by the Department.

Within 10 days from the date the Order is issued by the Department.

Within 60 days from the date the Order is issued by the Department.

Within 60 days from the date the Order is issued by the Department.

Within 60 days from the date the Order is issued by the Department.

Semiannual basis.

Within 60 days from the date the Order is issued by the Department. 8. Submit draft and final RI/FS Workplans; Section 5.5.2;

Draft due within 60 days from the date the Department approves the Baseline Risk Assessment Report; final due 30 days from receipt of Department comments on draft.

9. Submit Treatability Studies; Section 5.6;

As required during Site characterization.

10. Submit draft and final RI Reports; Section 5.7; Draft due per approved RI/FS Workplan Schedule; final due 30 days from receipt of Department comments on draft.

11. Submit draft and final Risk Assessment Reports; Section 5.8; Draft due within 75 days from Department approval of final RI Report; final due 30 days from receipt of Department comments on draft.

12. Submit draft and final FS
 Reports;
 Section 5.9;

Draft due within 105 days from Department approval of final RI Report; final due 30 days from receipt of Department comments on draft.

13. Submit Data and
Information re: CEQA
Initial Study and
Checklist; Section 5.11;

Within 60 days from Department approval of final FS Report.

14. Submit Draft RAP; Section 5.12; Within 75 days from Department approval of final FS Report.

15. Submit Emergency Response Action Report; Section 5.14;

Within 7 days of an emergency response action.

16. Provide copies of sampling, data, and documentation; Section 6.11;

Within 20 days of receipt of Department's request.

17. Provide prior notice before conducting field sampling; Section 6.11;

Inform Department 5 days <u>in</u> advance of sampling.

18. Maintain central depository of data, reports, documentation; Sections 6.11 and 6.12;

Maintain central depository for a minimum of seven years after conclusion of all activities conducted pursuant to the Order.

19. Provide prior written notice to the Department before destroying any documentation prepared pursuant to the Order; Section 6.12;

At least three months prior to destroying any documents.

20. Provide oral notice of any event that may delay performance; Section 6.15;

Within 48 hours of when event first known.

21. Provide written
description and
explanation of any event
that may delay
performance; Section
6.15.

Within 14 days of when event first known.

6.26 <u>Parties Bound</u>. This Order applies to and is binding upon Respondents, and their successors and assignees, and upon the Department and any successor agency of the State of California that may have responsibility for and jurisdiction over the subject matter of this Order.

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VII. NONCOMPLIANCE

- 7.1 The Department and Respondents agree that the Department shall have the authority to enforce the terms of this Order in the Superior Court of the State of California in and for the City and County of San Francisco. The Department and Respondents further agree that, in any proceeding brought by the Department to enforce the terms of this Order, Respondents shall not contend, and shall waive any defense asserting, that they are not required to perform the requirements of this Order. Respondents expressly reserve all other rights and defenses with respect to any such proceeding.
- 7.2 The Department contends that it has the authority, pursuant to H&SC section 25359.2, to seek penalties of up to \$25,000 per day for any failure or refusal to comply with an order it issues pursuant to H&SC section 25355.5. Respondents admit only that H&SC section 25359.2 speaks for itself. The Department and Respondents agree that, in any proceeding brought by the Department for penalties and/or punitive damages, in which Respondents' failure to comply with this Order is alleged, Respondents shall not contend, and shall waive any defense asserting, that they are not required to perform the requirements of this Order. Respondents expressly reserve all other rights and defenses with respect to any such proceeding.

7.3 Health and Safety Code section 25359.3 provides that a person who complies with this Order, or with another order or agreement concerning the same response actions required by this Order, may seek treble damages from any person named in this Order, or in such other order or agreement, who is subject to contribution and who fails or refuses to comply with this Order or such other order without sufficient cause.

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KAISSA ALLIVIVALINI SCHEMICAL CORPORATION

LAW DEPARTMENT

March 4, 1996

VIA FAX No.: (415)772-6268 ORIGINAL VIA OVERNIGHT MAIL

Joseph J. Armao, Esq. Heller, Ehrman, White & McAuliffe 333 Bush Street San Francisco, California 94104-2878

Re: BAY AREA DRUM SITE - SAN FRANCISCO, CALIFORNIA

Dear Joe:

Enclosed herewith is a copy of the signature page to the DTSC Consent Order which has been duly executed on behalf of Kaiser Aluminum & Chemical Corporation by J. A. Bonn, Vice President.

Sincerely yours,

Charles B. Brown

Assistant General Counsel

CBB:mm

Enclosure
As Indicated

cc: J. W. Vinzant

VIII. REPRESENTATIVE AUTHORITY

8.1 Each undersigned representative of a party to this Consent Order certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Order and to execute and legally bind that party to this Order.

8.2 The Department and Respondents agree that this Consent Order may be issued by the Department, and consented to by each of the Respondents, in several counterpart originals, all of which when taken together shall constitute an integrated agreement.

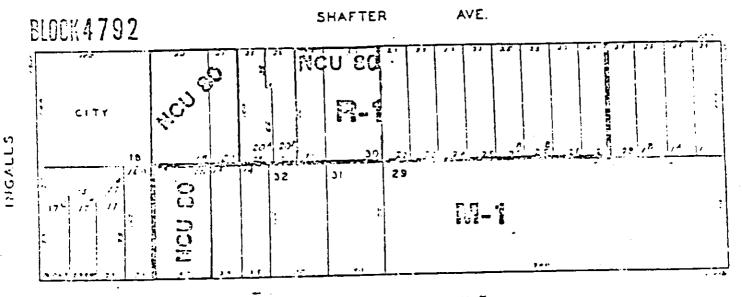
Date	oi	Issuance:	
			BARBARA J. COOK, P.E.
			Branch Chief
			Department of Toxic Substances Control

The undersigned acknowledges receipt of the foregoing Consent Order and consents to its terms and conditions:

Dated: 3/4/96	Kaiser Aluminum & Chemical Corporation
	By:
-	Title: <u>Vur Ausian</u> T

Exhibit A

Legal Description of the Property: "Beginning at the point of intersection of the northeasterly line of Thomas Avenue and the northwesterly line of Hawes Street; running thence northwesterly and along said line of Thomas Avenue 300 feet; thence at a right angle northeasterly 100 feet; thence at a right angle southeasterly 300 feet to the northwesterly line of Hawes Street; and thence at a right angle southwesterly along said line of Hawes Street 100 feet to the point of beginning."



THOMAS

FOE.

EXHIBIT B

SUBSTANCES DETECTED IN GROUNDWATER AT THE SITE AND IN THE SOIL OF THE PROPERTY'S PROCESS BUILDING

Table 1 lists hazardous substances detected in the groundwater at the Site that exceed Primary Maximum Contaminant Levels (MCLs: drinking water standards).

TABLE 1

SUBSTANCES DETECTED IN GROUNDWATER ABOVE MCLs	RANGE OF CONCENTRATIONS IN ug/L*	MCLs IN PPB
Benzene	ND** to 263	1
Chromium (total)	ND to 100	50
1,1-Dichloroethane	ND to 160	5
1,2-Dichloroethane	ND to 5,720	0.5
cis-1,2-Dichloroethylene	ND to 3,000	6
trans-1,2-Dichloroethylene	ND to 114,300	10
Lead	ND to 63	15***
Tetrachloroethylene	ND to 360	5
Toluene	ND to 320	150
	ND to 589	5
Trichloroethylene Vinyl chloride	ND to 20,050	0.5

^{*} Micrograms per liter (parts per billion)

^{**} Non-detect

^{***} Federal Action Level

Table 2 lists hazardous substances detected in the soil in the Property's process building in concentrations that exceed either: (1) the Total Threshold Limit Concentration ("TTLC") associated with each substance; (2) 10 times the Soluble Threshold Limit Concentration ("STLC") associated with each substance; or (3) 20 times the Toxicity Characteristic Leaching Procedure value ("TCLP") associated with each substance. A waste containing a substance in excess of its associated TTLC is a hazardous waste. 22 CCR sections 66261.20(a) and 66261.24. A waste that contains a substance in a milligrams per kilogram concentration greater than 10 times its associated STLC, or 20 times its associated TCLP value, is potentially a hazardous waste. TTLC, STLC and TCLP values are listed in the California Code of Regulations ("CCR"), Title 22, Division 4.5, section 66261.24.

TABLE 2

SUBSTANCES DETECTED IN SOIL ABOVE CRITERIA	RANGE OF CONCENTRATIONS mg/kg**	CRITERIA IN PPM*
Antimony	ND*** to 200	15 ST
Arsenic	ND to 68	5.0 ST
Barium	ND to 2,400	100 ST
Benzene	ND to 14	0.5 TC
Cadmium	ND to 30	1.0 ST
Chromium	ND to 290	5.0 TC
Copper	ND to 4,800	2,500 TT
4,4-DDE	ND to 7.4	1.0 TT
4,4-DDD	ND to 24	1.0 TT
4,4-DDT	ND to 2	1.0 TT
Lead	ND to 7,400	1,000 TT
Mercury	ND to 9.9	0.2 ST
Nickel	ND to 1,700	20 ST
PCB-1260	ND to 2,600	50 TT
Tetrachloroethylene	ND to 92	0.7 TC
Trichloroethylene	ND to 85	0.5 TC
Zinc	ND to 5,800	5,000 TT

TTLC (TT), STLC (ST), or TCLP (TC)
Milligrams per kilogram (parts per million)
Non-detect